

arguments. The Examiner asserts that "at least 0.24" encompasses 0.5 and any number > 0.5 . Likewise, "at least 0.41" is interpreted as encompassing 0.41 and any number larger than 0.41, which includes 0.5 and any number > 0.5 . The Examiner asserts that, if not anticipated, this is at least obviousness, and notes that Applicants admit on the record that the prior art at least suggests "at least 0.5".

Regarding the argument that none of the prior art examples fall within the range presently claimed, the Examiner asserts that the prior art teachings are not limited to the examples. The Examiner asserts that while the prior art may not contain a specific example within the claimed ranges, the ranges disclosed in the reference still encompass that claimed by applicant.


The Examiner notes that "ranges **encompassing** 0.5 and above" are taught by the cited references. However, Applicants note that ranges **encompassed by** "0.5 and above" are **not** taught by the cited references, which is a more proper determination of anticipation. Applicants note that the Examiner admits that the cited references merely state the ranges preferred therein, but do not disclose any working examples in the claimed range.

Applicants note that MPEP §2131.03 states that when the prior art discloses a range that overlaps the claimed range, but no specific examples falling within the claimed range are disclosed, a case-by-case determination must be made as to anticipation. In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an anticipation under the statute." What constitutes a "sufficient specificity" is fact dependent. The MPEP then indicates that as an example, if the claims are directed to a narrow range, the reference

teaches a broad range, and there is evidence of unexpected results within the claimed narrow range, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute anticipation of the claims. In light of the limited specific viscosity teachings of the cited references, Applicants submit that the claimed range is not disclosed with sufficient specificity. Therefore, Applicants submit that the cited references do not anticipate the claimed invention.

Claim Rejections under 35 U.S.C. §103

Applicants note that the present invention relates to a processing aid for poly (vinyl chloride). The processing aid of the present invention is prepared by a two-step polymerization, and is characterized in that the viscosities of the first-step polymer and the second-step are at least 0.7 and at least 0.5 (as a solution of 0.1 g in 100 mL of chloroform at 30°C), respectively.

Applicants note that in the cited references, one or both of specific viscosities of first-step polymer and second-step polymer is/are lower than the claimed specific viscosities of the present invention, as Applicants noted in the previously submitted remarks and declaration. 

The Examiner asserts that it would have been obvious to have the claimed specific viscosity, because the Examiner asserts that Applicant has not shown unexpected result compared with the cited references that teach viscosities greater than or equal to 0.24 or greater than or equal to 0.41.

Applicants disagree with the reasoning of the Examiner with respect to the assertion of not showing unexpected results of the claimed viscosities, because the specification clearly shows the

undesirable result of a low specific viscosity outside the claimed range. Comparative Example 10 exhibits a first-stage polymer viscosity that is lower than that claimed, and all else being equal, this results in unexpectedly poorer gellation and foamability properties versus that of Examples 17-20, which have the claimed specific viscosities.

Nevertheless, Applicants submit herewith an Inventor's Declaration under 1.132 that further illustrates that the processing aid of the present invention has excellent properties unexpected from the cited references.

The first-step polymer obtained in Comparative Example 9 of the present invention, the first-step polymer and the second-step polymer obtained in Comparative Example 10 and the first -step polymer obtained by EXPERIMENT in the attached declaration have lower specific viscosity than the claimed specific viscosity of the present invention. When these polymers are used as processing aids for poly (vinyl chloride), satisfactory transparency, gellation property and foamability are not obtained. Accordingly, it is obvious that satisfactory transparency, gellation property and foamability can not be obtained when at least one of specific viscosity of the first-step polymer and the second-step polymer is lower than the claimed specific viscosity of the present invention.

The cited references neither disclose or suggest that the processing aid of the present invention having specific viscosity of at least 0.7 in the first step and specific viscosity of at least 0.5 in the second step exhibits more excellent effects on transparency, gellation property and foamability than that having specific viscosities outside of the range claimed in the present invention. Accordingly, the present invention is not anticipated by the unpatentable over the cited references.

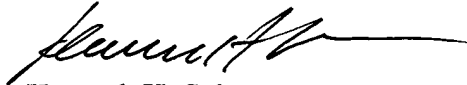
In view of the aforementioned remarks and accompanying Declaration, Applicants respectfully submit that the claims are in condition for allowance. Withdrawal of the rejection and passage of the claims to issue are earnestly requested.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees that may be due with respect to this paper to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Inventor's Declaration under 37 C.F.R. §1.132

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